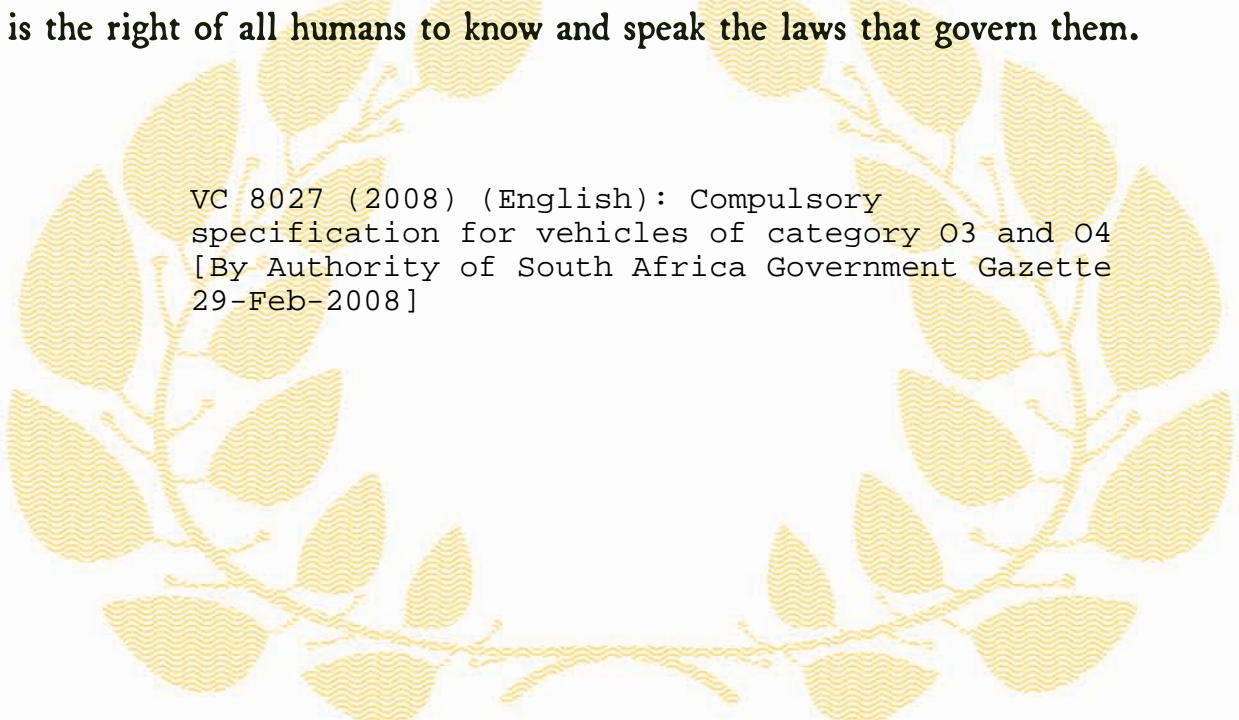




Republic of South Africa

EDICT OF GOVERNMENT

In order to promote public education and public safety, equal justice for all, a better informed citizenry, the rule of law, world trade and world peace, this legal document is hereby made available on a noncommercial basis, as it is the right of all humans to know and speak the laws that govern them.



VC 8027 (2008) (English): Compulsory
specification for vehicles of category O3 and O4
[By Authority of South Africa Government Gazette
29-Feb-2008]



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Compulsory Specification for

VEHICLES OF CATEGORY O₃ AND O₄

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NOTICE 96 OF 2010

DEPARTMENT OF TRADE AND INDUSTRY

NATIONAL REGULATOR FOR COMPULSORY SPECIFICATIONS ACT
(Act 5 of 2008)AMENDMENT TO THE COMPULSORY SPECIFICATION FOR MOTOR
VEHICLES OF CATEGORY 03/04

I, Dr Rob Davies, Minister of Trade and Industry, hereby under Section 13 (1) (a) of the National Regulator for Compulsory Specifications Act, (Act 5 of 2008), withdraw the current Compulsory Specification for *Motor Vehicles of Category 03/04*, and replace it with the Compulsory Specification as set out in the attached schedule, with effect from the date two (2) months from publication of this notice.



Dr Rob Davies, MP
Minister of Trade and Industry

SCHEDULE

COMPULSORY SPECIFICATION FOR VEHICLES OF CATEGORY O₃ AND O₄

1 Scope

1.1 This specification covers the requirements for vehicle models of category O₃ and O₄ designed or adapted for operation on a public road at speeds greater than 40 kph, including new vehicle models and vehicle models not previously registered or licensed in South Africa.

This specification also covers vehicles of category O₃ and O₄ designed and adapted for the purpose of the carriage of passengers, as in a semi-trailer bus, and these are also subject to further relevant requirements of the specification for category M₂ and M₃ motor vehicles (buses).

1.2 The requirements of the specification shall, in so far as the parts already incorporated are concerned, apply in respect of an incomplete vehicle supplied for further manufacture by one manufacturer to another, and the entire specification shall apply to the vehicle after completion thereof by the last-mentioned manufacturer.

1.3 The specification does not apply to experimental or to prototype trailers constructed or imported by the original manufacturer or by importers for the purpose of testing, assessment or development, or to those military trailers that embody ordnance or missile systems, or to agricultural trailers.

1.4 The relevant requirements of this specification shall take effect on the date as specified in Schedule 1.

1.5 Where a South African national standard, including an international standard, or a UN ECE regulation adopted by the South Africa, is incorporated by reference into this specification, only the technical requirements/specification for the commodity, and the tests to verify the compliance, apply.

2 Definitions

For the purposes of this specification, the following definitions apply:

2.1

agricultural trailer

a low speed trailer designated as such by the manufacturer, and intended to be towed by a vehicle that does not exceed 40 km/h

2.2

category O:

a) category O₃

trailers with a maximum mass exceeding 3,5 metric ton but not exceeding 10 metric ton; and

b) category O₄

trailers with a maximum mass exceeding 10 metric ton

Semi-trailers and centre-axle trailers.

In the case of a semitrailer or a centre-axle trailer, the maximum mass to be considered for classifying the trailer shall be the static vertical load transmitted to the ground by the axle, or axles of the semitrailer, or centre-axle trailer, when coupled to the towing vehicle and carrying its maximum load

2.3**homologation**

a process of establishing the compliance of a model of vehicle and approval being granted by the regulatory authority, prior to it being introduced for sale

2.3**Importer**

a person who imports a category O vehicle, and "import" has a corresponding meaning

2.4.**manufacturer**

the person who manufactures, produces, assembles, alters, modifies, adapts or converts a category O vehicle, and "manufacture" has a corresponding meaning

2.5**maximum weight**

the maximum mass of a vehicle and its load as specified by the manufacturer

2.6**model**

the manufacturer's description for a series of vehicle designs that do not differ in respect of axle configuration and does not exceed the trailers' gross axle mass load.

The Regulatory Authority reserves the right to decide on which variations or combinations of variation constitute a new model, and may also take cognisance to the classification system applied in the country of origin of the design

2.7**public road**

a road, street or thoroughfare, including the verges, or any other place, whether a thoroughfare or not, to which the public have the right of access and that they commonly use

2.8**proof of compliance**

the authentic evidence of compliance with any of the requirements of this compulsory specification from a source defined in "Source of Evidence" in Annexure A

2.9**registered manufacturer, importer or builder (MIB)**

any manufacturer, importer or builder required to be registered in terms of regulation 38 of the National Road Traffic Act 93/1996

2.10**regulatory authority**

an organization appointed by the Minister of the Department of Trade and Industry to administer this compulsory specification on behalf of the South African Government

2.11**semi-trailer**

trailer having no front axle and so designed that at least 15 % of its tare is super-imposed on and borne by a vehicle drawing such trailer

2.12**semi-trailer bus**

a category O semi-trailer, that is intended to be drawn by a category N truck-tractor, the combination of which is designed or adapted for the conveyance of a driver and more than eight passengers. (See also 3.3.)

3 General requirements

3.1 Requirements for lights, lighting equipment and rear warning signs

3.1.1 Lights

Lights fitted to a trailer shall comply with the relevant requirements as given in the following:

SABS ECE R3, *Uniform provisions concerning the approval of retro-reflecting devices for power driven vehicles and their trailers;*

SABS ECE R4, *Uniform provisions for the approval of devices for the illumination of rear registration plates of motor vehicles (except motorcycles) and their trailers;*

SABS ECE R6, *Uniform provisions concerning the approval of direction indicators for motor vehicles and their trailers;*

SABS ECE R7, *Uniform provisions concerning the approval of front and rear position (side) lamps, stop-lamps and end outline marker lamps for motor vehicles (except motor cycles) and their trailers;*

SABS ECE R23, *Uniform provisions concerning the approval of reversing lights for power driven vehicles and their trailers;*

SABS ECE R37, *Uniform provisions concerning the approval of filament lamps for use in approved lamp units of power driven vehicles and trailers; and*

SABS ECE R91, *Uniform provisions concerning the approval of side-marker lamps for motor vehicles and trailers.*

3.1.2 Lighting and retro-reflectivity

Lighting and retro-reflective markings shall be fitted to a trailer and shall comply with the relevant requirements given in SABS ECE R48, *Uniform provisions concerning the approval of vehicles with regard to the installation of lighting and light-signalling devices* and SABS ECE R104, *Uniform provisions concerning the approval of retro-reflective markings for heavy and long vehicles and their trailers.*

The requirements for the installation of retro-reflectors may be met by the use and fitting of retro-reflectors that are defined in the relevant regulations of the Road Traffic Act, 1989 (Act 29 of 1989), or the National Road Traffic Act 1996 (Act 93 of 1996) and in addition, the requirements may also be met by the use and fitting of retro-reflectors that are integral portions of any other light lens assembly.

3.1.3 Rear warning sign (chevrons)

A rear warning sign shall be fitted to a trailer and shall comply with the relevant requirements of the Road Traffic Act, 1989 (Act 29 of 1989) or the National Road Traffic Act, 1996 (Act 93 of 1996).

3.2 Requirements for windows and partitions

3.2.1 Glass partitions and windows fitted to any trailer shall be:

- a) of safety glass that complies with the relevant requirements given in SABS 1191, *Safety glass for vehicles – High penetration resistant laminated safety glass for vehicles*, SABS 1192, *Safety glass for vehicles – Laminated safety glass for vehicles* or SABS 1193, *Safety glass for vehicles – Toughened safety glass for vehicles*; or
- b) of plastics safety glazing material that complies with the relevant requirements of SABS 1472, *Plastics safety glazing materials for motor vehicles.*

3.2.2 For the purpose of this specification, the marking requirements shall be as follows:

- a) the glass shall bear the glass manufacturer's registered trade mark; and
- b) the glass fitted shall comply with an approved national standard, recognized by the Regulatory Authority, that will provide a method of identifying the glass type.

3.3 Requirements for brakes and braking equipment

A vehicle shall be fitted with braking equipment that complies with the relevant requirements given in SABS ECE R13, *Uniform provisions concerning the approval of vehicles of categories M, N and O with regard to braking*, to the level of ECE R13.08.

For the purposes of braking requirements for a semi-trailer bus, the vehicle shall be considered as a category O commercial vehicle.

3.4 Pneumatic braking system connections

A vehicle shall be fitted with a pneumatic braking system that complies with the relevant requirements given in SABS 1477-1, *Pneumatic braking system connections between drawing and drawn vehicles – Part 1: Contact type couplings*, SABS 1477-2, *Pneumatic braking system connections between drawing and drawn vehicles – Part 2: Palm type couplings* and SABS 1477-3, *Pneumatic braking system connections between drawing and drawn vehicles – Part 3: The arrangement of connections on vehicle, using contact type or palm type couplings*.

3.5 Requirements for electrical connectors

Electrical connectors that are fitted for the purpose of towing, shall comply with:

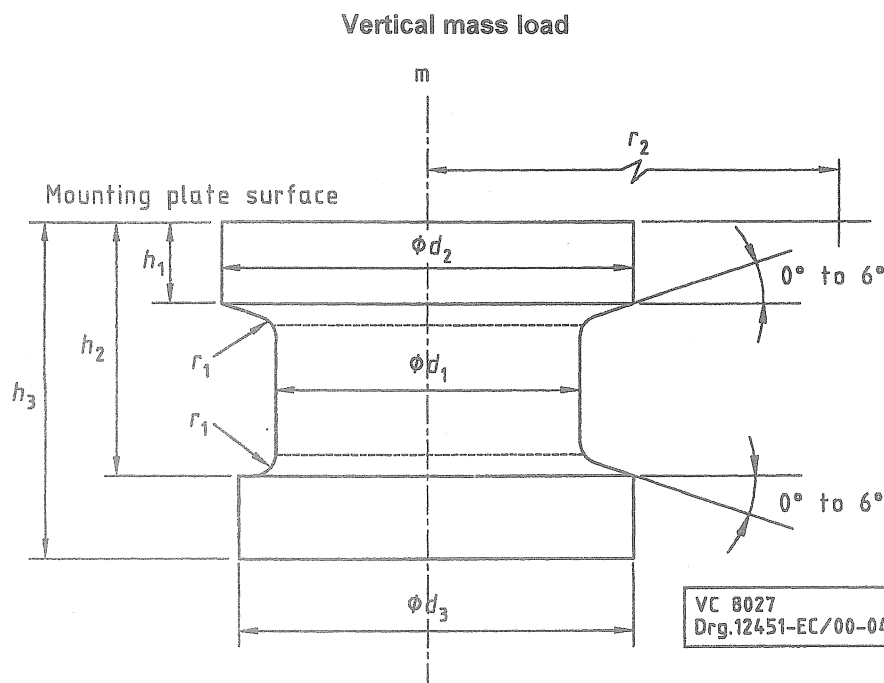
- a) in the case of 12 V systems:
 - 1) SABS 1327, *Electrical connectors for towing and towed vehicles (7-pole connectors)*, or
 - 2) SABS ISO 11446, *Passenger cars and light commercial vehicles with 12 V systems – 13-pole connectors between towing vehicles and trailers – Dimensions and contact allocation*; and
- b) in the case of 24 V systems:
 - 1) SABS 1327, *Electrical connectors for towing and towed vehicles (7-pole connectors)*; or
 - 2) SABS ISO 12098, *Commercial vehicles with 24 V systems – 15-pole connectors between towing vehicles and trailers – Dimensions and contact allocation*.

3.6 Requirements for couplings on semi-trailers

3.6.1 Kingpin and mounting plate

A semi-trailer shall be equipped with a fifth-wheel kingpin that is securely fitted to a mounting plate on the semi-trailer.

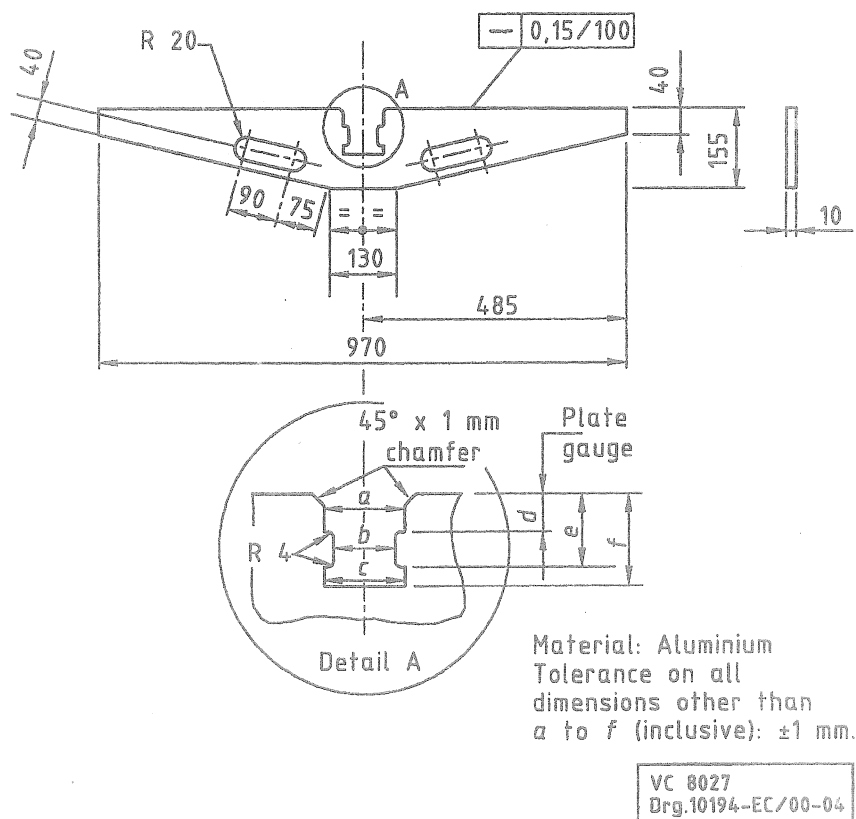
The kingpin shall be of type 50 or type 90. The combination of the kingpin and mounting plate shall be capable of supporting the appropriate mass-load. The dimensions of a type 50 and type 90 kingpin shall comply with those given in figure 1.



1	2	3
Parameter	Dimensions of kingpin mm	
	Type 50	Type 90
ϕd_1	$50,8 \pm 0,1$	$89,0 \pm 0,1$
ϕd_2	$73,0 \pm 0,1$	$114,0 \pm 0,1$
ϕd_3	$71,5 \pm 0,4$	$111,0 \pm 0,4$
h_1	$35 + 0 - 3,0$	$21 + 0 - 3,0$
h_2	$70 + 1,5 - 0$	$59 + 1,5 - 0$
h_3	$84 + 0 - 1,5$	$74 + 0 - 2,0$
Radius r_1	$3,0 + 0,5 - 0$	$3,0 + 0,5 - 0$
Radius r_2	At least 485	At least 485
	Vertical mass load tons	Vertical mass load tons
m	Not more than 20	Over 20

Figure 1 — Kingpin details

The mounting plate surface shall be flat within 1,5 mm total indicator reading (TIR) over a radius of at least 485 mm from the axis of the kingpin. The geometry of the kingpin/mounting plate combination shall be such that when the relevant gauge, shown in figure 2, is placed in contact with the mounting plate surface across any transverse diameter, the kingpin is able to pass through the gauge with the gauge still in contact with the surface.



1	2	3
Parameter	Dimensions of kingpin mm	
	Type 50	Type 90
a	74,5	116,3
b	53,4	93,5
c	74,7	115,7
d	37,6	23,0
e	68,0	57,0
f	85,4	75,2

NOTE Tolerance on all above dimensions $\pm 0,05$ mm.

Figure 2 — Details of the kingpin/mounting plate gauge

The axis of a kingpin shall, at any point on the mounting plate surface within a radius of at least 485 mm from the axis of the kingpin, be at an angle of $90^\circ \pm 1^\circ$ to the mounting plate surface.

3.6.2 Mechanical properties of kingpin

A kingpin shall have mechanical properties equal to or better than those given in table 1.

Table 1 — Mechanical properties of kingpin

1	2
Mechanical property	Value
Tensile strength, MPa	850 – 1 000
Yield stress, MPa, min.	680
Elongation, %, min.	13
Izod impact value, J, min.	54
Hardness, HB	250 – 300

3.7 Requirements for rear underrun protection devices

A rear underrun protection device shall be fitted to a trailer and shall comply with the relevant requirements given in SABS 1055, *Motor vehicle safety: Rear underrun protection devices*.

3.8 Requirements for warning triangles

In the case of a vehicle supplied with a warning triangle as part of the vehicle equipment, such a warning triangle shall comply with the requirements of SABS 1329-1, *Retro-reflective and fluorescent warning signs for road vehicles – Part 1: Triangles*.

4 Requirements concerning metrological data

4.1 Trailer dimensions

The dimensions of a trailer shall comply with the requirements of the relevant regulations of the Road Traffic Act, 1989 (Act 29 of 1989) or the National Road Traffic Act 1996 (Act 93 of 1996).

4.2 Information plates

4.2.1 Data plate

A trailer shall have, permanently affixed to it in a conspicuous position, and visible from the left-hand side of the trailer, a data plate or plates. The following information shall be legibly and permanently imprinted or stamped on the data plate(s):

- a) the gross vehicle mass, in kilograms, prefixed by the letters "GVM/BVM";
- b) the gross axle mass-load or gross axle unit mass-load of each axle or axle unit, in kilograms, prefixed by the letters "GA/BA" or "GAU/BAE", as applicable;
- c) if the trailer is a semi-trailer, the gross kingpin mass-load in kilograms, prefixed by the letters "GKM/BSM";
- d) The manufacturer's design intent, denoted by the wording "For public road operation"; and
- e) the month and the year of manufacture, denoted by four numeric digits, two for the month, followed by two for the year (for example, July 1987 would be denoted by 0787).

4.2.2 Vehicle Identification Number (VIN)

A trailer shall have a vehicle identification number that complies with the relevant requirements given in SABS ISO 3779, *Road vehicles – Vehicle identification number (VIN) – Content and structure*, and SABS ISO 4030, *Road vehicles – Vehicle identification number (VIN) – Location and attachment*.

However, the requirements for the VIN, as given in clause 5 of the said SABS ISO 4030, shall, for the purpose of this compulsory specification, be taken to read as follows:

5 VIN attachment

5.1 The VIN shall be marked directly on any integral part of the vehicle; it may be either on the frame, or, for integral frame body units, on a part of the body not easily removed or replaced.

5.2 The VIN shall also be marked on the data plate.

5.3 Deleted.

5.4 The height of the roman letters and the Arabic numerals of the VIN shall be as follows:

- at least 7 mm if marked in accordance with 5.1 (frame, body, etc.) on motor vehicles and trailers; and
- at least 3 mm if marked in accordance with 5.2 (data plates).

4.3 Provision for registration

Suitable spaces shall be provided on the data plate(s) referred to in 4.2.1:

- a) T.....kg (for tare);
- b) V.....kg (for the permissible maximum trailer mass); and
- c) A.....kg or AU/AE...kg, as applicable (for the permissible axle mass-load or permissible axle unit mass-load of each axle or axle unit).

The responsibility for the marking of this information on the data plate(s) shall rest with the trailer manufacturer.

4.4 Axle brake data plates

Each axle on a trailer shall be provided with information applicable to the brake design, the particulars of which shall be permanently and legibly imprinted or stamped either on a data plate permanently affixed in a conspicuous position adjacent to the axle or on the plates as required by SABS ECE R13, given as follows:

- a) the axle make and serial number;
- b) the brake chamber size and the brake lever length;
- c) the maximum tyre size; and
- d) brake lining material type and grade.

4.5 Measuring units

All gauges, indicators or instruments that are fitted to a trailer and that are calibrated in physical units shall be calibrated in units as prescribed by the current applicable regulations promulgated under the Measuring Units and National Measuring Standards Act, 1973 (Act 76 of 1973).

5 Requirements for the control of environmental interference

5.1 Suppression of radio and television interference

All components, accessories or equipment fitted to a trailer and that generate and radiate electromagnetic energy, shall comply with the current applicable regulations relating to interference with communications, promulgated under the Telecommunications Act, 1996 (Act 103 of 1996).

5.2 Suppression of atmospheric pollution

All engines, accessories or equipment fitted to a trailer and that generate smoke emissions, shall comply with the current regulations promulgated under the Atmospheric Pollution Prevention Act, 1965 (Act 45 of 1965).

6 Requirements for trailer equipment, components and systems

6.1 Tyres

Tyres for trailers shall comply with the relevant requirements of the compulsory specification for pneumatic tyres for commercial vehicles and their trailers.

6.2 Wheel flaps

All trailers of gross mass exceeding 3,5 t shall be fitted with wheel flaps that comply with the relevant requirements given in SABS 1496, *Wheel flaps fitted to motor vehicles*.

Provided that:

chassis-only trailers that are being driven to a place to have body work fitted, or to a dealer of such vehicles, are excluded from the requirement for the fitment of wheel flaps.

6.3 Axle or axle unit suspension

A semi-trailer shall be fitted with axle suspension that complies with the relevant regulations of the National Road Traffic Act, 1996 (Act 93 of 1996).

7 Homologation requirements

7.1 Homologation

Registered manufacturers, importer and builders (MIBs) shall have each model of motor vehicle from a specific source, covered by the scope of this compulsory specification, successfully homologated by the regulatory authority in accordance with the requirements of Annexure A.

7.2 Rights of homologation approval

The rights of ownership of homologation approval, so granted for a vehicle model in 7.1, shall lie with the registered MIB that obtained such approval. This may only be transferable, to another registered MIB, on request of the MIB that currently owns the rights of homologation approval, and be authorised by, the regulatory authority.

A transference fee, as determined by the Minister, shall be paid to the regulatory authority.

8 Equivalent requirements

The requirements of any of the national standards stated in the appropriate parts given in Table 2 shall be deemed to have been met if compliance with the equivalent standards given in columns 5, 6, 7 or 8 of the same table, or any of their later amendment levels is achieved.

Where an EEC Directive is quoted in column 5, and an amendment level is quoted in column 6, this shall mean that the Directive and its amendment up to, and including the quoted level (in column 6), is the minimum level acceptable.

COMPULSORY SPECIFICATION FOR VEHICLES OF CATEGORY O₃ AND O₄**Schedule 1 — Operative dates**

1	2	3	4	5
Subsection	Item	Operative date	Exclusions	Exclusion expiry date
	All new, or newly amended, subsections/items, not referred to below	2 months after final gazetting	Nil	
3.1.1	Lights to SABS ECE R3 SABS ECE R4 SABS ECE R6 SABS ECE R7 SABS ECE R23 SABS ECE R37 SABS ECE R91	1 January 2001	Nil	
3.1.2	Lighting to SABS ECE R48 Markings to SABS ECE R104	1 January 2002 1 January 2002	Nil	
3.3	Braking to SABS ECE R13	1 January 2002	Nil	
3.4	Pneumatic connections to SABS 1477	1 January 2002	Nil	
3.5	Electrical connectors to SABS ISO 11446 and SABS ISO 12098	1 January 1998	Nil	
6.3	Axle suspension to National Road Traffic Act	1 January 2002	Nil	

COMPULSORY SPECIFICATION FOR VEHICLES OF CATEGORY O₃ AND O₄

Table 2 — Equivalent standards that shall be deemed to comply with SABS/SANS standards

1	2	3	4	5	6	7	8	9
Equivalent standards								
Subsection	Item	SABS No.	Dated	EEC	Inclusive	ECE	Others	Remarks
3.1.1	Lights	ECE R3 ECE R4 ECE R6 ECE R7 ECE R23 ECE R37 ECE R91		76/757 76/760 76/759 76/758 77/539 76/761 76/758	97/29 97/31 89/277 97/30 97/32 89/517 97/30	R3 R4 R6 R7 R23 R37 R91		
3.1.2	Installation of lights	1046	1990	76/756	89/278	R48		
3.2	Safety glazing	1191 1192 1193	1978 1978 1978	92/22 92/22 92/22		R43 R43 R43		
3.3	Brakes and braking	ECE R13	1996			R13.08		
3.6 6.3	Rear underrun Axle suspension	1055	1983	70/221	81/333	R58	NRTA	

Annexure A

Administrative Process - Homologation of Models of Vehicles of Category O3/O4.

1. The Applicant shall formally submit a request for homologation, for each model of vehicle intended to be manufactured or imported, in writing, to the Regulatory Authority providing information of his/her intention to homologate that model of vehicle.
2. The Regulatory Authority shall forward to the Applicant the relevant homologation application documents for each model requested in 1 above. The application documents shall stipulate the information to be submitted to the Regulatory Authority, and these shall accompany the submitted application.
3. The Applicant shall complete the application and provide the necessary requested supporting documentation, and forward it to the Regulatory Authority. The appropriate fee for the homologation, as determined by the Minister by Notice in the Government Gazette, shall be paid to the Regulatory Authority.
4. Upon receipt of the completed application and the required documents, the Regulatory Authority shall review the documents for correctness, completeness, and authenticity. Incorrect documentation, or insufficient documentation, will be reported to the applicant, for his/her correction.
5. Once the application documentation is correct, the Regulatory Authority shall formally confirm to the Applicant the date and place for the sample vehicle to be inspected as part of the homologation process (if not already submitted).
6. At the homologation inspection, the Regulatory Authority shall inspect the sample vehicle and verify it against all mandatory requirements and the submitted evidence of conformity in the application documents, to these requirements.
7. Any non-compliances identified in 6 above, shall be resolved by the Applicant, to the satisfaction of the Regulatory Authority.
8. Once the homologation process establishes that the vehicle model complies with all the relevant mandatory requirements, the Regulatory Authority shall issue a formal Letter of Compliance (Homologation Approval Letter), to the applicant.
9. The original application documents, and copies of supporting evidence of compliance documents, as necessary, shall be taken, and maintained as Homologation Records, by the Regulatory Authority.

Source of evidence

The evidence of compliance to any of the requirements of any referred-to standard in this compulsory specification, which requires testing to establish compliance, and a test report issuing, will only be recognized by the Regulatory Authority, from the following sources:

- 1) A laboratory that is part of an international or regional mutual acceptance scheme, or
- 2) A laboratory that is accredited to ISO/IEC 17025 by SANAS or an ILAC affiliated accreditation body, or
- 3) The laboratory has been successfully assessed against the requirements of ISO/IEC 17025 to the satisfaction of the Regulatory Authority.